RECEIVED
CENTRAL FAX CENTER
SEP 11 2006

REMARKS

Reconsideration is respectfully requested of the Office position dated March 28, 2006 in rejection of claims 1 to 10 under the provisions of 35 USC 102(b) or 35 USC 103(A). Claims 1 to 10 remain under consideration.

The present Request for Continued Examination is to enter into the record of the present patent application a Declaration under 37 CFR 1.132. This Declaration is by Dr. Yves Bader, as inventor of the present patent application. Page 1 of the Declaration set forth his education and experience in the field of the present invention. The Declaration addresses the disclosure and teachings of Graham, Jr. et al. U.S. Patent 4,541,231, Sawhney et al. U.S. Patent 5,802,826, and Ogawa et al. U.S. Patent 4,520,623.

Claims 1-3, 8, and 10 stand rejected under 35 USC 102(b) as anticipated by Graham, Jr. The Declaration on page 2 notes the wording of the Office Action, namely:

That I have been advised the rejection based on Graham employs the following wording:

> Graham teaches a core yarn with substantially no torque (Abstract) comprising a central hard filament glass core (Column 2, line 54) with an elongation at break of less than 50% (inherent property; likewise, must have either Z or S twist), and a fiber covering comprising natural comfort fibers (Column 2, line 37) twisted on the core with an opposite twist to that of the core. Graham also teaches its use in woven fabric (Abstract, use in weaving).

Then Dr. Bader makes the following statement of the inapplicability of Graham:

> That I state in reply Graham is not pertinent, illustratively the following wording is present on Column 2, lines 64 and 65 of this publication, namely "the glass fiber is stiff, resists twist and shears easily."

The Declaration provides a detailed explanation of the reasons Graham is not pertinent as follows:

That I believe the rejection is based on a premise of imparting a twist to a glass fiber core and an opposite twist to the covering on the glass fiber core which premise is incorrect.

That I state Graham produces a balanced yarn by ply twisting:

(a) a glass fiber core having a covering with

(b) a glass fiber core having a covering,

or in other words, (a) and (b) are twisted in opposite directions.

That I note the following wording is present in Graham, Column 3, lines 3 to 11:

> It is within the scope of the invention to employ a pretwisted glass filament core to reduce torque in the resultant core yarn, in such case, the pretwisted filament must be rolled off a spool rather than pulled over the end of a bobbin. **Singles yarns by the spinning process are then ply-twisted in the opposite direction from the singles twist to produce a balanced plied yarn with each singles component having a glass core. (emphasis added)**

That I state Graham has no relevance to my invention.

Accordingly reconsideration and withdrawal of the grounds of rejection is requested.

Claims 1-5, 8, and 10 stand rejected under 35 USC 102(b) as anticipated by Sawhney et al. The Declaration on page 2 and 3 notes the wording of the Office Action namely:

> Sawhney teaches a core yarn (9) with substantially no torque (Column 2, lines 28-29) comprising a central hard filament aramid core (Column 5, line 4) with an elongation at break of less than 50% (inherent property, likewise must have either Z or S twist), and a fiber covering comprising viscose (Column 5, line 5) UV protection fibers (any property will to a degree protect against UV) twisted on the core with an opposite twist to that of the core. Sawhney also teaches its use in woven fabric.

Then Dr. Bader provides a detailed discussion with supporting reasoning why Sawhney "has no relevance to my invention." This discussion is set forth on pages 3 and 4 as follows:

That I provide the following discussion in reply since this publication has no relevance to my invention.

Sawhney teaches a method using a combination of two "open-ended" spinning techniques: air-jet spinning and friction spinning. Open-ended spinning techniques result in yarns having a "false twist" which changes constantly in an alternating fashion along the length of the yarn. In the method of Sawhney, air-jet spinning is

used to make the central core, while friction spinning is used to make the sheath surrounding the core. The result is a core having a false twist surrounded with a sheath having a false twist.

That I am directly aware of the following wording of Sawhney on column 3, lines 14-16:

> Preferably, the twist direction of the airjet spinner is opposite to that of the friction spinner, in order to produce torqueless interlocking of core and sheath....

That I provide the following explanation in reply to the quoted words from Sawhney.

The passage refers to the twist direction used in the spinning machines, but not the twist of the actual resulting yarn. In the combination of air-jet spinning and friction spinning, the twist in the machine is used simply to cohere the filaments. By using opposite directions in the two machines, improved interlocking of the fibres is obtained. However, a lasting true Z- or S-twist is not imparted to the yarn, as in the method of the invention.

For example, in friction spinning, as is used by Sawhney et al. to form the sheath, fibres are fed into the nip of rollers and the fibres are twisted as they pass through the rollers. This imparts a twist that is released when the yarn exits the rollers. The result is a false twist. This is described in Sawhney et al. at Column 2, lines 7-10. A false twist can be observed in the yarn as small areas of randomly distributed S and Z twists, often separated or interspersed with untwisted regions of yarn. Yarns with false twists are intrinsically essentially torque-free, because for each S twist region, there is statistically an opposing Z twist region.

The method of the invention involves imparting a true Z- or S-twist to the core, and an opposite true twist to the sheath, with the torque in the sheath being equal but opposite to that in the core. This results in a torque free yarn. This type of yarn has substantially higher strength than friction-spun yarns. A method producing false twist, as disclosed in Sawhney et al., does not disclose a yarn produced by a method that imparts a true Z- or S-twist to the core and an opposite twist to the sheath, such as the method of the invention.

Accordingly reconsideration and withdrawal of the grounds of rejection is requested based on Sawhney.

Claims 5 and 6 stand rejected under 35 USC 103(a) based on Graham. Claim 5 is a dependent claim requiring a covering made of viscose fibers while claim 6 is likewise a dependent claim requiring the ore to be covered at least 90%. Since these claims are dependent on claim 1, the lack of pertinence is not cured by a rejection under 35 USC 103(a) rather then 35 USC 102(b). These claims represent a patentable advance in the art for the same reasons as claim 1.

Claim 9 stands rejected under 35 USC 103 based on Graham in view of Ogawa et al. The following text in the Declaration addresses the wording of the Office position and sets forth a conclusion as follows:

That I have been advised of a rejection of my invention based on Graham in view of Ogawa et al. with the following wording:

> Graham essentially the invention as discussed above, but fails to specifically teach a twist coefficient in the range of 35-60, which Ogawa teaches is well known in the hard fiber yarn art (Abstract). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to utilize such a well known twist coefficient, so as to ensure proper structure the yarn without destroying the hard fibers therein through over-twisting.

That I state in reply the deficiencies of Graham have been discussed above and Ogawa does not cure these deficiencies.

Claims 6 and 7 stand rejected in paragraph 7 of the Office rejection under 35 USC 103(a) based on Sawhney. These claims dependent on claim 1 represent a patentable advance for the same reasons as claim 1. Accordingly the remarks opposite Sawhney are applicable for claims 6 and 7.

In summary the Declaration of Dr. Bader sets forth:

That I state in summary the Office position is incorrect in any application of the publications discussed above opposite my invention.

In conclusion the following comment in the Response to Arguments of the Office communication is noted as follows:

> In the instant application, the prior art of record as detailed previously, and above, teaches a yarn with substantially no torque. How it is created is immaterial so long as the claim requirements are fulfilled.

The detailed comments above directly answer this statement, the claim requirements are not fulfilled and accordingly a patentable advance is respectfully submitted to be present.

In view of the foregoing, withdrawal of all grounds of rejection is requested. A notice of allowance of the above-referenced application is respectfully solicited.

Respectfully submitted,

ANDREW G. GOLIAN
ATTORNEY FOR APPLICANT
Registration No.: 25,293
Telephone: (302) 892-0747
Facsimile: (302) 892-7343

Dated: Sept 11, 2006

AGG:fgl
Enclosures